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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,996	10/31/2003	Hong Rae Cha	HI-0184	8240
34610 7590 07/06/2007 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER SANEI, HANA ASMAT	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 07/06/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/696,996

**Applicant(s)**

CHA, HONG RAE

**Examiner**

Hana A. Sanei

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/16/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-28, 42, 43, 45, 46 and 50-59 is/are allowed.
- 6) ☒ Claim(s) 29-41, 44, 47-49, 60-61 is/are rejected.
- 7) ☒ Claim(s) 62 and 63 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The Amendment, filed on 4/16/07, has been entered and acknowledged by the Examiner.

Cancellation of claims 1-4 has been entered.

Claims 5-63 are pending in the instant application.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 34-37, 39, 48-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Gotoh et al (US 6229085 B1).

With respect to Claim 34, Gotoh teaches a panel (1, plasma display panel, hereinafter referred to as PDP, see at least Fig. 7); a front surface filter (2c, filter) formed directly on (22, antistatic layer directly disposed on 1) the front surface of the panel; a first metallic layer (20, conductive coat disposed on 1) formed on a prescribed areas of a front surface of the front surface filter, a back cover (4, rear portion of enclosure) disposed at a rear surface of the panel; a front cover (3, frontal portion of an

enclosure) disposed at a front surface of the front surface filter; a filter support (7, mounting brackets) formed on a front surface of the first metallic layer for electrically connecting ("conductive mesh 12 is connected to ground through the mounting bracket 7, conductive coat 20, metallic portion 1e, and through the grounded terminal 10, thereby ensuring a common return path in electrical circuits is present in the mounting bracket, Col. 5, lines 5-8) the film type front surface filter with the back cover.

With respect to Claim 35, Gotoh teaches that the first metallic layer is further formed on a lateral face of the front surface filter (lateral portions of the 20 interior-conductive-coated surface of 3 & 4).

With respect to Claim 36, Gotoh teaches that a second metal layer (12) is further disposed between the first metal layer (20) and the filter support (7).

With respect to Claim 37, Gotoh teaches that the front surface filter is a film type front surface filter (see Fig. 7 at least).

With respect to Claim 48, Gotoh teaches that the film type front surface filter does not include glass (2c, Col.4, lines 13-19; Col. 4, lines 30-32, Col. 5, lines 60-67).

With respect to Claim 39, Gotoh teaches a panel (1, plasma display panel, hereinafter referred to as PDP, see at least Fig. 7); a front surface filter (2c, filter) formed directly on (22, antistatic layer directly disposed on 1) the front surface of the panel; a first metallic layer (20, conductive coat) formed on a prescribed areas of a front surface of the front surface filter, a rear surface and a lateral face of the front surface filter (top, bottom, and lateral portions of the 20 interior-conductive-coated surface of 3 & 4); a back cover (4, rear portion of enclosure) disposed at a rear surface of the panel; a

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front cover (3, frontal portion of an enclosure) disposed at a front surface of the front surface filter; a filter support (7, mounting brackets) formed on a front surface of the first metallic layer for electrically connecting ("conductive mesh 12 is connected to ground through the mounting bracket 7, conductive coat 20, metallic portion 1e, and though the grounded terminal 10, thereby ensuring a common return path in electrical circuits is present in the mounting bracket, Col. 5, lines 5-8) the film type front surface filter with the back cover.

With respect to Claim 49, Gotoh teaches that the film type front surface filter does not include a glass layer (2c, Col.4, lines 13-19; Col. 4, lines 30-32, Col. 5, lines 60-67).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 29-31, 33, 38, 41, 47, 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gotoh et al (US 6229085 B1) in view of Koike et al (US 6965191 B2).

Regarding Claim 29, Gotoh teaches a panel (1, plasma display panel, hereinafter referred to as PDP, see at least Fig. 7); a film type front surface filter (2c, filter) disposed directly on (22, antistatic layer directly disposed on 1) a front surface of the panel; a back cover (4, rear portion of enclosure) disposed at a rear surface of the panel; a filter

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support (7, mounting brackets) for electrically connecting ("conductive mesh 12 is connected to ground through the mounting bracket 7, conductive coat 20, metallic portion 1e, and though the grounded terminal 10, thereby ensuring a common return path in electrical circuits is present in the mounting bracket, Col. 5, lines 5-8) the film type front surface filter with the back cover; a support member (3, frontal portion of an enclosure) disposed to encompass a portion of the film type front surface filter and the filter support, and connected to the back cover (see where 3 & 4 meet); and a metallic layer (20, conductive coat) which does not overlap with the panel (non overlapping region is lateral portions of the 22 interior-conductive-coated surface of 3 & 4), formed on the film type front surface filter (2c, including 22). Gotoh fails to teach a film type front surface filter having a wider area than the panel.

In the same field of endeavor, Koike teaches a display panel having a film type front surface filter (functional transparent layer, Col. 7, lines 7-9; Col. 9, lines 7-16; Figure 6, #60) that has a wider area than the panel in order to ensure capability of shielding other electromagnetic waves than a visible light from among electromagnetic waves generated from display screen (Col. 1, lines 9-15).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the area of the film type front surface filter, as disclosed by Koike, in the PDP of Gotoh in order to ensure capability of shielding other electromagnetic waves than a visible light from among electromagnetic waves generated from display screen.

With respect to Claim 30, Gotoh teaches that the metallic layer (20) is formed between the filter support (7) and the support member (7).

With respect to Claim 31, Gotoh teaches that the metallic layer is electrically connected (Col. 4, lines 2-11) with the film type front surface filter (2c) and the filter support (7).

With respect to Claim 33, Gotoh teaches that the metallic layer (20), the filter support (7) and the support member (3) respectively have at least one hole (between bosses, 5) and a screw (6) disposed to pass through the hole such that the metallic layer, the filter support and the support member are fixed to one another (refer at least Figure 7).

Regarding Claim 38, Gotoh teaches the invention set forth above (see rejection in Claim 34 above). Gotoh fails to teach that the prescribed area of the film type front surface filter corresponds to an area not overlapping with the panel.

In the same field of endeavor, Koike teaches a display panel having prescribed area of the film type front surface filter corresponds to an area that is not overlapping with the panel (functional transparent layer, Col. 7, lines 7-9; Col. 9, lines 7-16; Figure 6, #60) in order to ensure capability of shielding other electromagnetic waves than a visible light from among electromagnetic waves generated from display screen (Col. 1, lines 9-15).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the area of the film type front surface filter, as disclosed by Koike, in the PDP of Gotoh in order to ensure capability of shielding other

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electromagnetic waves than a visible light from among electromagnetic waves generated from display screen.

With respect to Claim 41, the claim is rejected over the same reasons as stated in the rejection of Claim 38. Motivation to combine would be the same as stated above.

With respect to Claim 47, Gotoh teaches that the film type front surface filter does not include a glass layer (2c, Col.4, lines 13-19; Col. 4, lines 30-32, Col. 5, lines 60-67).

With respect to Claim 60, Gotoh teaches that the metallic layer (20) is located between (laterally between or indirectly between) the filter support (7) and the front surface filter (2c).

With respect to Claim 61, Gotoh teaches that the front surface filter (2c) is a film type filter (Col. 8, lines 60-65).

3. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gotoh et al (US 6229085 B1) in view of Koike et al (US 6965191 B2) in further view of Yoshikawa et al (US 6255778B1).

Regarding Claim 32, Gotoh-Koike teaches the invention set forth above (see rejection in Claim 29 above). Gotoh-Koike fails to teach a plurality of protrusions on the filter support.

In the same field of endeavor, Yoshikawa teaches a plurality of protrusions on the filter support (adhesive tape 7, particles may have granular or pellet-like configuration; see at least Figure 1; Col.6, lines 21-45) in order to ensure high bond strength of the adhesive tape material (Col. 5, lines 20-23).



Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the filter support, as disclosed by Yoshikawa, in the PDP of Gotoh-Koike ensure high bond strength of the adhesive tape material.

***Allowable Subject Matter***

A. Claim 5-9, 42, 45-46, 50-57 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

The prior art of record teaches a plasma display panel, comprising:  
a panel; a front surface filter disposed directly on a front surface of the panel to have a wider area than the panel; a back cover disposed at a rear surface of the panel; a filter support for electrically connecting the front surface filter with the back cover; a support member disposed to encompass a portion of the front surface filter and the filter support, and connected to the back cover; and a metallic layer formed on an extending portion of the front surface filter.

However, the prior art of record neither shows nor suggests a motivation for the extending portion not overlapping with the panel and being located between the filter support and the support member as set forth in Claim 5.

Claim 6-9, 42, 45-46, 50-57 are allowable because of their dependency status from claim 5.

B. Claim 10-13, 25-27, 58 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

The prior art of record teaches a plasma display panel, comprising: a panel having an upper substrate and a lower substrate for displaying an image; a front surface

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filter formed directly on a front surface of the panel; a back cover spaced from and disposed in a backward portion of the panel to cover the backward portion of the panel; a front cover spaced from and disposed in a forward portion of the film type front surface filter to cover at least part of the front surface filter; a filter support to physically support the front surface filter and electrically connect the front surface filter with at least one of the back cover or the front cover; and a first conductive layer formed between the end portion of the front surface filter and the filter support to electrically connect the front surface filter and the filter support.

However, the prior art of record neither shows nor suggests a motivation for the filter support being disposed between front surface filter and the front cover as set forth in Claim 10.

Claims 11-13, 25-27, 58 are allowable because of their dependency status from claim 10.

C. Claim 14-24, 28, 43 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

The prior art of record teaches a plasma display panel, comprising: panel having an upper substrate and a lower substrate; a film type front surface filter disposed at a front surface of the panel, the film type front surface filter having a wider area than that of the panel so that the film type front surface filter has an extended portion in at least part thereof beyond the edges of the panel; a back cover spaced from and disposed in a backward portion of the panel to cover the backward portion of the panel; a filter support disposed between the film type front surface filter and the back cover to physically

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support the film type front surface filter and electrically connect the film type front surface filter with the back cover.

However, the prior art of record neither shows nor suggests a motivation for and a first conductive layer formed between the extended portion of the film type front surface filter and the filter support to electrically connect the film type front surface filter and the filter support as set forth in Claim 14.

Claim 15-24, 28, 43 are allowable because of their dependency status from claim 14.

D. Claim 62 is objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The prior art of record teaches a plasma display panel, comprising: a panel; a front surface filter formed directly on a front surface of the panel; a first metallic layer formed on a prescribed area of a front surface of the front a back cover disposed at a rear surface of the panel; a front cover disposed at the front surface of the front surface filter; and a filter support formed on a front surface of the first metallic layer for electrically connecting the front surface filter with the back cover or the front cover.

However, the prior art of record neither shows nor suggests a motivation for the filter support being disposed between the front surface filter and the front cover as set forth in Claim 62.

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E. Claim 63 is objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The prior art of record teaches a plasma display panel, comprising: a panel; a front surface filter formed directly on a front surface of the panel; a metallic layer formed on a prescribed area of a front surface, a rear surface, and a lateral face of the front surface filter; a back cover disposed at a rear surface of the panel; a front cover disposed at the front surface of the front surface filter; and a filter support formed on the metallic layer for electrically connecting the front surface filter with the back cover or the front cover.

However, the prior art of record neither shows nor suggests a motivation for the filter support being disposed between the front surface filter and the front cover as set forth in Claim 63.

### ***Response to Arguments***

Applicant's arguments filed on 4/16/07 have been fully considered but they are not persuasive.

A. In response to Applicant's arguments that Gotoh et al (US 6229085 B1) fails to teach that the filter support (7) is formed on a front surface of the first metallic layer (20), the Examiner respectfully disagrees.

Examiner understands that the point at which the metallic layer (20) and the filter support (7) directly meet is the point at which the "front surface" of the metallic layer (point of contact) has a filter support formed thereon (see Fig. 8 for further clarity).

The only function of introducing the conductive mesh 12 is sustaining the rejection is for the mere purpose of proving that an electrical connection is indeed made between the metallic layer and the filter support ("conductive mesh 12 is connected to ground through the mounting bracket 7, conductive coat 20, metallic portion 1e, and though the grounded terminal 10, thereby ensuring a common return path in electrical circuits is present in the mounting bracket, Col. 5, lines 5-8).

B. In response to Applicant's arguments that Gotoh et al (US 6229085 B1) fails to teach that the metallic layer (20) is formed on a prescribed area of a front surface, a near surface, and a lateral face of the front surface filter, the Examiner respectfully disagrees.

Gotoh does indeed teach a first metallic layer (20, conductive coat) formed on a prescribed areas of a front surface of the front surface filter, a rear surface and a lateral face of the front surface filter (top, bottom, and lateral portions of the 20 interior-conductive-coated surface of 3 & 4). It should be noted that the metallic layer is formed on the front (where 20 directly contacts surface of 11 of the filter 2c), the rear surface (where 20 indirectly contacts the filter 2c from the coating of back plate 4), and the lateral portion (where 20 indirectly contacts the filter 2c from the coating onto 3 that is perpendicular to the entire filter 2c, thereby being "formed" on a side or lateral face).


For the reasons stated above, the rejection of the claims is deemed proper.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hana A. Sanei whose telephone number is (571)-272-8654. The examiner can normally be reached on Monday- Friday, 9 am - 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hana A. Sanei  
Examiner

  
Joseph Williams  
Primary Examiner